

WARRANTY

(Effective January 1, 2007)

HIX will automatically register the equipment on the date it was shipped to you or your distributor. If the equipment was not purchased directly from HIX, but through a distributor (either domestic or foreign), please keep a copy of their sales invoice showing the serial number and date it was sold/shipped to you with this warranty. In this case, we will use the distributor's invoice date as the beginning warranty date. **STAPLE A COPY OF YOUR RECEIPT TO THIS WARRANTY** and keep in a safe place to provide verification of your warranty should a problem occur. Thank you.

Please fill in the following information and attach a copy of your receipt for your records.

Date Purchased: _____ From: _____

Model #: _____ Serial #: _____

This warranty applies to equipment manufactured by the HIX Corporation (HIX), Pittsburg, Kansas, U.S.A. HIX warrants to the original purchaser, its Conveyor Dryers, Heat Transfer Presses, Mug Presses, Mug Glazer, Retensionable Screen Frames, Textile Printers, Spot Heaters, and Exposure Units against defects in workmanship and material, except for wear and tear for a period of "One Year" from the date of purchase. HIX warrants its Accessories, Reten Splines/Hardware/Tool Kit, and Shuttle for a period of 90 days from the date of purchase. DoughXpress and Thermatrol products are covered under separate warranty.

In the event of a defect, HIX, at its option, will repair, replace or substitute the defective item at no cost during this period subject to the limitations of insurance and shipping costs stated below.

In the case of heat transfer presses (except the Mug Press, Hobby Lite), HIX warrants the heat casting for the "Life" of the machine for the original purchaser. If a part becomes obsolete at the time for repair, and/or cannot be reasonably substituted for, HIX will credit, at half the then current list price or last recorded price, only that part toward a new machine or any product HIX offers. This credit offer shall be the sole responsibility of the HIX Corporation in the event of an obsolete part.

This warranty does not cover belts, pads, mug wraps, mug press liners, canvas, rubber blankets, bulbs, glass, PTFE or finish, rod ends, turn buckles on printers, or mug press or damages due to accident, misuse/abuse, alterations or damage due to neglect, shipping or lack of proper lubrication or maintenance. HIX shall not be responsible for repairs or alterations made by any person without the prior written authorization by HIX. This warranty is the sole and exclusive warranty of HIX and no person, agent, distributor, or dealer of HIX is authorized to change, amend or modify the terms set forth herein, in whole or in part.

In the case of a problem with the equipment identified herein, HIX Corporation should be contacted during regular business hours to discuss the problem and verify an existing warranty. HIX personnel will assist the customer to correct any problems which can be corrected through operation or maintenance instructions, simple mechanical adjustments, or replacement of parts. In the event the problem cannot be corrected by phone, and upon the issuance of a return authorization by HIX, the equipment shall be returned to HIX or an authorized service representative. All insurance and shipment/freight costs are solely the responsibility of the customer, and not that of HIX, and HIX shall not be responsible for improper handling or damage in transit. HIX offers a reconditioning service and a core exchange/credit policy on some models. HIX customer service personnel may be contacted for complete return authorization and reconditioning information.

This expressed warranty is given in lieu of any and all other warranties, whether expressed or implied, including but not limited to those of merchantability and fitness for a particular purpose, and constitutes the only warranty made by HIX Corporation.

In no event shall HIX's liability for breach of warranty extend beyond the obligation to repair or replace the nonconforming goods. HIX shall not be liable for any other damages, either incidental or consequential, or the action as brought in contract, negligence or otherwise.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



Manufacturers of the Finest Quality Textile and Graphics Screen Printing and Heat Transfer Equipment

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Halux 1200

Digital Hot Restrike Exposure Unit

OWNER'S MANUAL



HIX CORPORATION
For Customer Service, Call **1-800-835-0606**
ext. 209, ext. 211, ext. 220, ext.221 or
Visit www.hixcorp.com

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BEFORE warranty repair you MUST get Prior Authorization:
Call 1-800-835-0606

INSTALLATION

CAUTION: Before installing or operating this unit be sure to read these instructions thoroughly. Disconnect all electric power before performing maintenance on this unit. **Never** operate this equipment with the power supply cover removed. If you find that this should be necessary, contact a licensed electrician. Make sure the circuit for this unit is well grounded.

WARNING: ULTRA VIOLET LIGHT CAN CAUSE SKIN & EYE IRRATION OR BLINDNESS. TO PREVENT DAMAGE TO YOUR EYES AND SKIN, AVOID DIRECT EXPOSURE TO THE LAMP WHILE IT IS ON.

INSTALLATION

1. Carefully uncrate exposure unit from its shipping container.
2. Place exposure unit on a level surface close to the wall circuit to be used. Adjust leveling feet, if necessary, so the unit does not “rock” on the floor.

WARNING: When using an extension cord, use 12 ga.-3 conductor. Maximum length, 25' (7.62m).

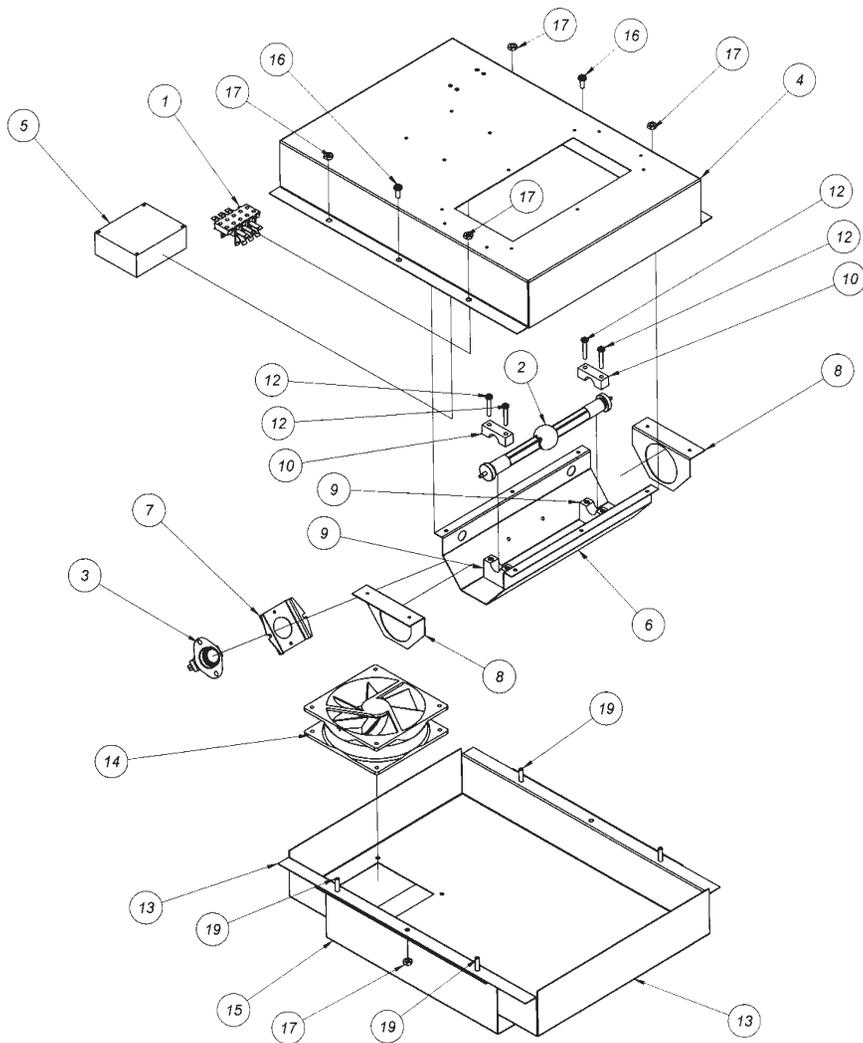
3. Check unit over for any transportation damage and make sure all foreign objects, such as packing material, have been removed. Clean both sides of glass from any dust. (See page 8)
4. The vacuum hose is connected to the top frame by a small hose clamp prior to shipping. Make sure the hose connection is still in place and secure. If the hose seems loose or has come off during shipping, secure hose and tighten hose clamp screw with a small flat-head screwdriver. (See page 16, item #4).

PARTS IDENTIFICATION

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	72231	Terminal Block 3KT
2	1	66230	Lamp HMI 1200/GS
3	1	16918	Thermostat Snap 310-350 NC
4	1	41384 *	5124020 Lamp Assembly Top Housing
5	1	66249	Ignitor HZG 15-25
6	1	41384 *	5124023 Hot Restrike Reflector
7	1	66281	Bracket T-Stat Conversion
8	2	41384*	5124024 LAMP REFLECTOR ENDS
9	2	41384*	5127110 HOLDER-Lower-w/inserts-Hot Restrike Bulb
10	2	41384*	5127111 HOLDER-Upper-Hot Restrike Bulb
12	4	78485	Screw MCH RH 8-32 x 3/4 ZP
13	1	41384 *	5124021 Lamp Assembly Bottom Housing
14	1	15571	Fan, Cooling
15	1	41384*	5124008 Lamp Assembly Support
16	2	15339	Screw MCH PH Phil 10-24 x 1/2
17	6	14563	NUT HEX 10-24 ZP
19	4	15347	Screw MCH RH 10-24 x 3/4

* Custom Cut Part

PARTS IDENTIFICATION



OPERATION

INITIAL STARTUP

The Hot Restrike System provides the advantage of a simple extremely reliable system with no moving parts, however some consideration must be made to ensure consistent screen exposures.

From a "Cold" start (e.g. first screen to be exposed for the day) the lamp requires a 1 minute warm up cycle to bring the lamp to full intensity. Also if more than 90 seconds elapses between screen exposures, then the lamp should be cycled on for a minute to ensure full intensity of the lamp for consistent screen exposures.

To warm up the lamp before starting your first exposure, follow this procedure.

1. Plug in your unit to the proper voltage power source (120V or 230V) as indicated on the serial number I.D. tag. **NOTE: Adequate voltage is required for proper operation. A minimum of 115V on a 120V circuit is required. The 230V version requires a full 230 volts to operate properly. If voltage drops below required level unit will not relight. Simply wait 2 minutes to cool and restart.**
2. Close the blanket lid and latch the lid shut with the rubber latch-hooks.
3. Turn the Main Power switch "ON".
4. Turn the Vacuum switch "ON" and allow the blanket to pull down tight to the glass.
5. Set the timer on at least 1 minute and press the "Start" button. To change the time setting - see detailed instructions below.
6. The lamp will illuminate and quickly increase in intensity. When the time set on the timer reaches "0" the lamp will extinguish. Turn the vacuum switch off and release the blanket lid.
7. Within 90 seconds place the first emulsion coated screen frame into the unit, as detailed on the next page, and start an exposure.

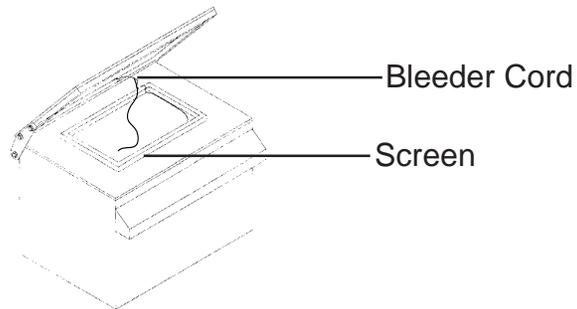
DIGITAL TIMER - Timer Setting and Operation

1. To change time setting, press the "UP" or "DOWN" arrow button on the front of the timer face. Timer will display "Minutes" and "Seconds".
2. Once the new time is entered, press the "MD" button on the face of the timer to lock in this new setting. Failure to press the "MD" button will not "lock" in the new setting.
3. Press the "Start" button on the control panel. This will start the timer and turn the exposure lamp on.
4. Timer will count down and when time reaches zero, the exposure lamp will extinguish.
5. If at any time you want to extinguish the exposure lamp before time expires, you may do so by pressing the "RST" button on the face of the timer.

OPERATION

EXPOSING A SCREEN

1. Place your screen frame in the center of the glass, screen side down.
2. Place bleeder cord on top of and inside the frame as close to the frame side as possible (See illustration below) **NOTE:** This cord facilitates quick blanket draw down and releasing of the vacuum after exposure and the vacuum has been turned off.



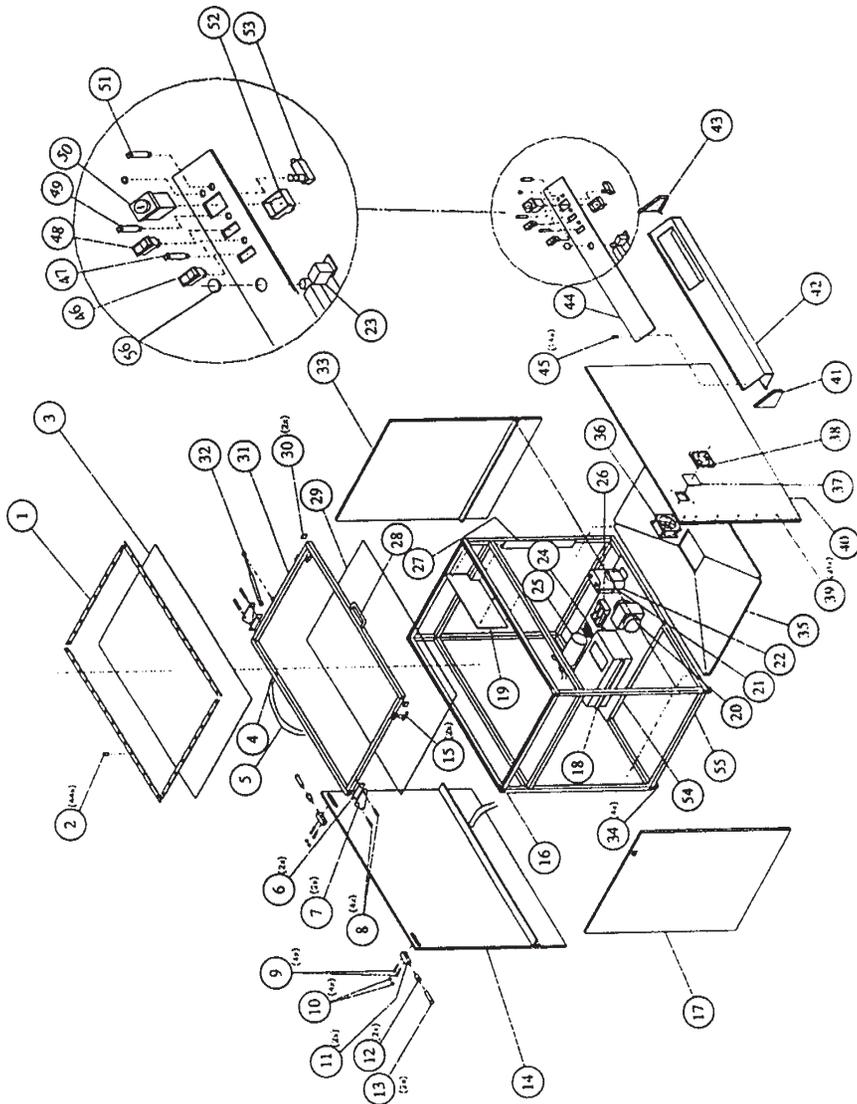
3. Close the blanket lid and latch the lid shut.
4. Turn the Main Power switch "ON".
5. Turn the Vacuum switch "ON" and allow the blanket to pull down tight to the screen and the glass.
6. Set the timer on the desired exposure time for the type of emulsion and screen you are going to expose. See "Determining Your Optimum Exposure Time" on page 5 or your filled in chart on page 6 if you have already determined your exposure time.
7. Press the "Start" button located to the right of the timer dial to begin the exposure.
8. At the end of the selected time, the lamp will extinguish.
9. Turn the vacuum switch off, release and open the lid and remove the screen frame. If another screen is to be exposed, do this within 90 seconds or a brief warm up of the lamp will be necessary as described in the "Initial Startup" instructions on page 3.

PARTS IDENTIFICATION

1. Blanket Seal Frame	41384*	32. Lid Support -Gas	63401
2. Screw-Tap 8x1/2 BZ	21482	33. Right Side Panel w/Rail	41384*
3. Blanket Material	35912	34. Leveler Feet (Nut)	14605
4. Hose Clamp	18392	Screw 5/16 x 3/4"	81034
5. Vacuum Hose	16888	35. False Floor	41384*
6. Hinge Spacer	41384*	36. Exhaust Fan	15571
7. Hinge	41384*	37. Fan Filter	50261
8. 1/4 x 1" Cap screws	72413	38. Fan Guard	50237
9. 1/4 x 1" Cap Screws	72413	39. Screw -Tap 8x1/2 BZ	21482
10. Chrome Plugs	85639	40. Front Panel	41384*
11. Hinge Bracket	41384*	41. Control Panel - Left	41384*
12. Hinge Bushing	41384*	42. Control Panel Box	41384*
13. Hinge Pin	18384	43. Control Panel - Right	41384*
14. Back Panel w/Rail	41384*	44. Control Panel - Face	41384*
15. Rubber Latch	16837	45. Screw-Tap 8x1/2 BZ	21482
16. Weather-stripping	16896	46. Illumin. On/Off Switch	94684
17. Left Side Panel w/Rail	41384*	47. Circuit Breaker - 20A	21199
18. Light housing	41384*	48. Illumin. On/Off Switch	94684
19. Control Access Panel	41384*	49. Circuit Breaker - 8A	20222
20. Inductor Halux 1200	66257	50. Digital Timer	34924
21. Capacitor 60 mfd	66265	51. Circuit Breaker 1A	23485
23. Vacuum Switch	31159	52. Timer Bracket	89334
24. Terminal Board	72249	53. Start Button	27045
25. Vacuum Pump Motor	18929	54. Component Support Panel	41384*
26. Relay	18414	55. Exposure Unit Frame	41384*
27. Wire Guard	41384*	56. Chrome cap	41384*
28. Lid Lift Handle	57002	NP 3/8" Black Edge Trim	16411
29. Glass Top	29014	NP 3/4" Half Round Seal	35904
30. Plastic End Caps	16829		
31. Lid Frame	41384*		

* Custom Cut Part

PARTS IDENTIFICATION



OPERATION

Determining Your Optimum Exposure Time By Trial

1. Follow normal operations explained previously.
2. Inspect your newly exposed screen for proper exposure. **Underexposed:** results in weak stencil with poor emulsion adhesion and reduced resistance to printing inks and wash up solvents. **Overexposed:** results in loss of fine detail.
3. Once you have determined the proper exposure for your emulsion type fill in the chart provided on page 6 of this manual as a ready reference. This will save you time in the future.

NOTE: This procedure should be followed for each new emulsion type or new mesh count. This procedure should also be followed periodically as the lamp intensity will lessen with age.

Determining Your Optimum Exposure Time By Exposure Calculator (Preferred Method)

1. Follow normal operations explained above.
2. Place exposure calculator on screen following calculator's instructions.
3. Set timer to **double** the **estimated** exposure time.
4. Inspect your newly exposed screen according to calculator's instructions.
5. Multiply the previously set exposure time by number indicated on the exposure calculator.
6. This new number is the proper exposure for your emulsion type. Fill in the chart provided on page 6 of this manual as ready reference.

NOTE: This procedure should be followed for each new emulsion type, new mesh count or mesh type (i.e. yellow, blue, white). This procedure should also be followed periodically since the lamp intensity will lessen with age.

OPTIMUM EXPOSING TIME CHART					
Use and copy this chart for recording your shop's popular emulsions and exposure times.					
DATE	MESH COUNT	EMULSION COLOR	EMULSION BRAND	COATING METHOD	EXPOSURE TIME

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
4. Lamp fails to remain ignited.	4. a. Lamp housing cooling fan failure. b. Obstruction of air input or output causing over heating, thus tripping the thermostat. c. Defective high limit thermostat.	4. a. Replace cooling fan. b. Remove obstruction, allow thermostat to cool, it will then reset itself. c. Replace thermostat.
5. Lamp ignites OK when cold, but will not HOT Restrike reliably.	5. Low voltage supply. Must be 115-120v on a 120v unit or 230-240v on a 230v unit. Voltage measured must be when unit is on and under load.	5. Have a electrician remedy the cause of low voltage supply to the unit.
6. Unit fails to turn off when the power switch is "OFF".	6. Power switch is shorted.	6. Replace power switch.
7. Blanket won't "pull" a vacuum.	7. Vacuum leak.	7 a. Check hose connections to vacuum pump and to blanket frame. b. Check gasket to glass seal, replace if necessary. c. Realign lid. d. Check vacuum pump.

TROUBLESHOOTING

<u>PROBLEM</u>	<u>POSSIBLE CAUSE</u>	<u>REMEDY</u>
1. Lamp does not ignite and red light on main power switch is off.	1. a. No line power. b. Supply fuse or breaker blown. c. Unit main breaker is blown. d. Main power switch is defective. e. Outlet is defective.	1. a. Check power source. b. Reset supply breaker or replace fuse. c. Reset unit's main breaker. d. Replace switch. e. Replace outlet.
2. Lamp does not ignite and red light on main power switch is on.	2. a. Vacuum switch is out of adjustment. b. Ignitor is bad. c. Lamp is burned out.	2. a. Adjust vacuum switch. b. Replace ignitor. c. Replace lamp.
3. Unit blows fuses or trips Main Power Circuit Breaker.	3. a. Check amperage of supply breakers or fuses. b. Shorted capacitor(s). Discolored or inflated. c. Shorted ballast.	3. a. Replace supply breakers or fuses with minimum rating of 20 amps. b. Replace capacitors. c. Replace ballast.

MAINTENANCE

VACUUM SWITCH ADJUSTMENT

If your machine is new or has been moved recently and your lamp fails to work on first operation, the safety vacuum switch may need some adjustment. After going through the following procedure and your lamp still fails to work, check the Trouble Shooting Charts on Page 14 & 15.

1. Pry off chrome cap on control panel. (Item #56 on page 16)
2. Close and latch blanket lid with both rubber latches.
3. Turn on vacuum power switch and make sure the blanket pulls down tight against the glass before proceeding.
4. Locate the vacuum limit control (see figure below and item #23 on page 16).



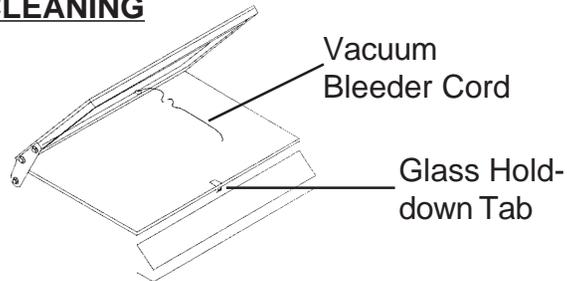
Insert Small screwdriver here

5. Set the timer to 3 minutes and press the "Start" switch.
6. Insert a small flathead screw driver with a blade length of at least 3" through the hole in the control panel and into the vacuum control as shown above. With your small flathead screwdriver adjust the screw either up or down just until the lamp comes on.
7. Shut off the vacuum. The lamp will extinguish immediately with vacuum off. If not, repeat step 6 until the lamp works with vacuum on and the lamp extinguishes with vacuum off. Reinstall chrome cap when finished.

MAINTENANCE

In order to maintain short exposure times and minimize pin holes in the emulsion, keep the unit's exposure glass clean. Dusting is usually sufficient. If more cleaning is required use a soft cloth moistened with alcohol. A dusty environment will require more cleaning.

GLASS CLEANING



1. Unscrew glass hold-down tab on the front of the unit as shown in illustration above.
2. Slide hold-down tab straight out.
3. Carefully lift front of glass from the gasket (leave back of glass resting on its gasket), clean underside, lay back down carefully and reinstall the hold-down tab and screw.

WARNING: Do not use metal objects, such as screwdriver to lift glass as they will chip or break the glass.

FAN FILTER SERVICING

WARNING: Unplug unit from outlet before cleaning filter.

NOTE: It is very important to periodically (once a month min.) clean or replace the fan filter. The filter prevents dust from entering the cabinet and gathering onto underside of the glass. Excessive dust deposits will cause "pinholes" to be exposed in the screen emulsion and will give poor results. This would also be a good time to clean both sides of the glass.

MAINTENANCE

10. Check operation, repeat alignment procedure if necessary.
11. Replace the plastic gas spring end covers and recheck for proper operation.

BLANKET REPLACEMENT

NOTE: If the blanket fails to pull a vacuum, check the Troubleshooting Chart for possible causes. If you determine that your blanket has begun to leak, it needs to be replaced. New blanket material can be ordered from the HIX website www.hixcorp.com. Click on [Buy Parts on the Web](#).

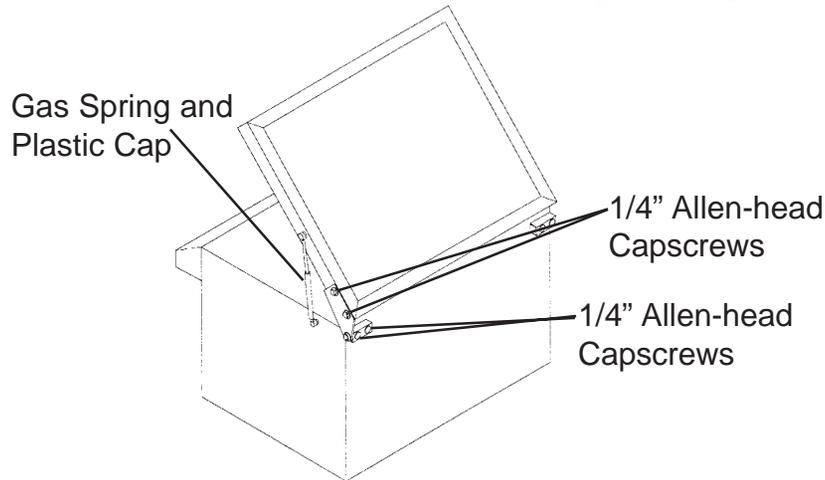
WARNING: Unplug unit from electrical outlet.

NOTE: Mark from which side the blanket holddown strips were located so that they can be replaced in the same location.

1. With the lid in the closed position, remove all the screws from the blanket frame. Remove the four aluminum frame strips surrounding the blanket. Remove all old blanket material. Scrape and sand lid frame to remove any glue or adhesive.
2. Lay new blanket material across lid in the proper orientation allowing the material to sag down to the glass in the center.
3. Seal the rubber to the blanket frame with 3M black weather strip adhesive.
4. Replace the aluminum strips on the same side that they were removed. Then snug all screws before going back and retightening securely.
5. Trim any excess blanket material by running a sharp utility knife along the outside of the aluminum frame.

MAINTENANCE

CAUTION: It is important to do this operation with the lid up, failing to do so could cause injury due to the sudden release of pressure on the gas spring!



2. Gently lay lid back down onto the glass and turn on the vacuum switch.
3. Loosen 1/4" Allen-head capscrews on the side of the exposure unit (2 on each side). (See figure above)
4. Loosen 1/4" Allen-head capscrews from the back of exposure unit. (2 on each side).
5. The vacuum pull will self align the hinges.
6. With the vacuum still applied, retighten the 1/4" allen screws at the sides of the unit.
7. Retighten the 1/4" allen screws on the hinge bracket at the back of the unit.
8. Turn off the vacuum and allow it to stabilize.
9. Carefully lift the lid to the open position and push the end of the gas spring back onto the ball connector.

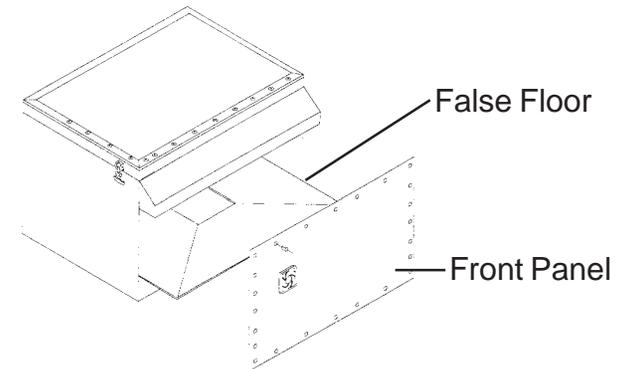
MAINTENANCE

1. Pry off plastic guard. (See item #38 on page 16.)
2. Remove filter (See #37 on page 16), wash with soap and water. Pat filter dry with a paper towel. **NOTE:** If filter is deteriorated, replace it.
3. Reinstall filter and plastic fan guard.

LAMP REPLACEMENT

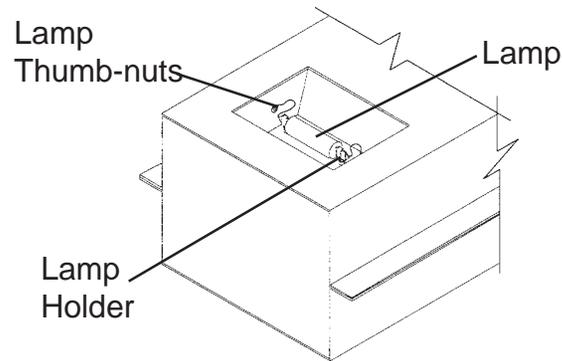
When you notice your exposure times getting longer or if the lamp fails to operate, check the Troubleshooting Chart on pages 14-15. Follow the instructions below if you determine that you need to replace the lamp.

WARNING: Unplug unit from electrical outlet. If lamp has been on, allow to cool for 10 minutes.



1. Remove all screws from unit's front panel. Cut wire tie around cord plug on fan and unplug fan. Carefully set panel aside. (See figure above.)
2. Remove black false floor by lifting floor up and out. Carefully set false floor aside.

MAINTENANCE



3. Remove thumb nuts at each end of the lamp and then remove the wires from the lamp.
4. Remove 4 screws holding the (2) lamp hold-down clamps and remove the old lamp.
5. Install the correct replacement bulb. **CAUTION: Do not touch the lamp glass with your bare hands.** Because of the intense heat, impurities, such as finger prints and hand oils, can cause premature failure of the lamp. If you are uncertain if the glass has been touched wipe it off with a soft cloth moistened with alcohol.
6. Reassemble lamp wiring, lamp hold down clamps, false floor, fan wires, new wire tie, and front panel. Plug unit into electrical power. **NOTE:** Be sure all lamp electrical connections are tight.

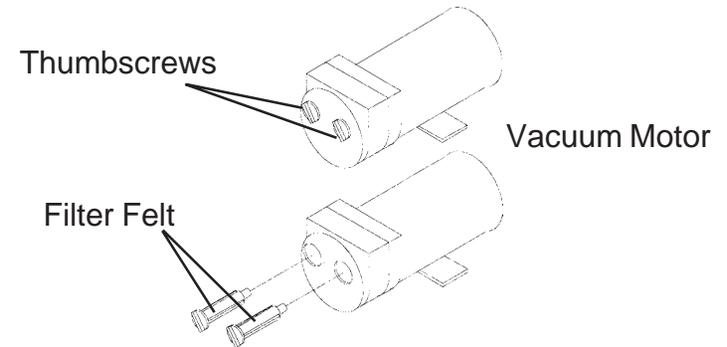
VACUUM PUMP FILTER REPLACEMENT

WARNING: Unplug unit from electrical power and vent all air lines to remove all air pressure.

Yearly inspection of the vacuum pump filters will increase the performance and life of the pump. The first inspection can be handled at the time of the first lamp change, check the cleanliness of the filter.

MAINTENANCE

1. Follow steps 1 and 2 in Lamp Replacement Maintenance.



2. Locate vacuum motor and unscrew thumbscrew. (See figure above)
 3. Inspect filter felt material for dirt or debris. Wash with soap and water if necessary. Pat dry with a paper towel.
- NOTE:** If filter cannot be cleaned replace it by contacting the pump manufacturer for a service kit.
4. Reinstall filters on thumbscrew, slide into place, and tighten thumbscrews.

LID REALIGNMENT

NOTE: The light and vacuum are sealed under the lid by means of rubber gasket under the lid frame. This rubber gasket may compress over time. If light is seen from the back side of the unit, or if the vacuum does not occur, the rubber gasket may be compressed or the lid is out of alignment. These problems can be alleviated by realigning the hinges.

1. Begin with the lid in the open position. Remove the plastic cap from the lid end of one of the gas springs. While holding the lid, pull end of gas spring straight out and off of the ball connector as you continue to manually hold the lid up.